

PSI Services LLC

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WEST VIRGINIA CONTRACTOR LICENSING BOARD EXAMINATIONS

CANDIDATE INFORMATION BOOKLET

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This Candidate Information Booklet provides you with information about the examination and application process for obtaining a contractor license in the State of West Virginia. West Virginia state laws stipulate that a person may not act as a contractor without first obtaining a license issued by the Contractor Licensing Board.

The West Virginia Contractor Licensing Board has contracted with PSI Services LLC (PSI) to conduct the examination testing. PSI works closely with the State to be certain that examinations meet local as well as national requirements in basic principles and examination development standards.

For the fastest and most convenient examination scheduling process, register for your examinations online by accessing PSI's registration Website: <u>Click Here</u> (https://test-takers.psiexams.com/wvcon).

- 1. You will receive an eligibility email from PSI. Select the link imbedded in the email or select the link above.
- 2. Select **TESTS** to create an account.



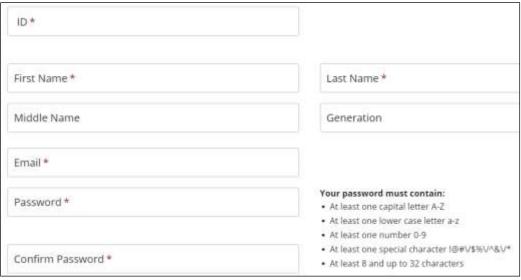
3. Select the examination and you are ready to create an account. Select LOGIN/REGISTER.

To continue the booking process and schedule your test, you must login or create an account.

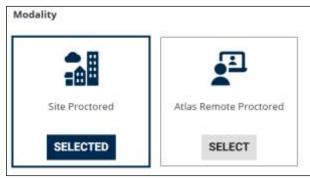
LOGIN/REGISTER

4. You will be prompted to CREATE AN ACCOUNT with PSI.

The first and last name must match exactly with your current, valid, government-issued ID. The ID is the last 4 letters of your last name and last four numbers of SSN.



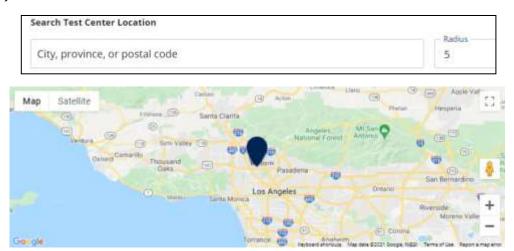
Select your test format: (Test Center) or (Remote Proctored).



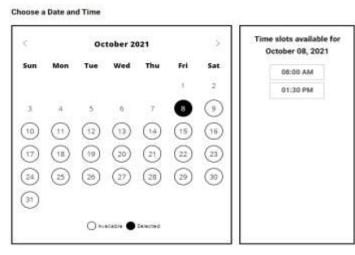


Scheduling at a Test Center

1. Enter the "City or Postal Code" and select FIND.



2. Select a date and time to book an appointment.



3. You are now ready to pay.



4. Once payment has been made you will receive a message confirming the test center, booked date, and booked time.





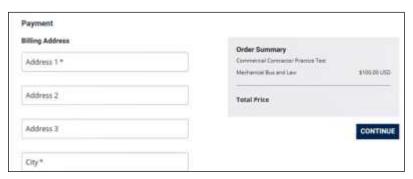
Scheduling via Remote Proctor

1. Select a date and time to book an appointment.





2. You are now ready to pay.



3. Once payment has been made you will receive a message confirming the booked date and booked time. Please review the

Choose a Date and Time

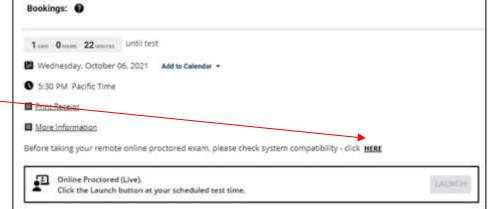
booking before selecting **CONFIRM**.



4. Your booking will now display in your account. You will be able to LAUNCH your test within 30 minutes of your booked test time.

IMPORTANT: BE SURE TO CHECK THE COMPATIBILITY OF YOUR COMPUTER to include Audio/Video Check, Webcam Check and System Check. Prior to testing, CLICK HERE.

By not starting your test within 15 minutes after your booked time, you forfeit your test fee or test eligibility. Fees and test eligibilities are non-refundable. If you have any questions



regarding your compatibility check, or if you experience issues launching your test, you may contact PSI's technical support team at (844) 267-1017. You may also initiate a chat after you close the Secure Browser Software by clicking here.



EXAMINATION FEE

Examination \$47.50

NOTE: EXAMINATION FEES ARE NOT REFUNDABLE OR TRANSFERABLE. Your examination fee will be forfeited if you do not test within 1 year of the date your examination fee is received by PSI.

TELEPHONE (855) 539-0708)

For telephone scheduling you will need a valid credit card (VISA, MasterCard, American Express or Discover). PSI registrars are available Monday through Friday between 8:00 am and 10:00 pm, and Saturday-Sunday between 8:30 am and 6:00 pm, Eastern Time.

RESCHEDULING/CANCELING AN EXAMINATION APPOINTMENT

You may cancel and reschedule an examination appointment without forfeiting your fee if your cancellation notice is received 2 days before the scheduled examination date. For example, for a Monday appointment, the cancellation notice would need to be received on the previous Saturday. You may call PSI at (855) 539-0708.

Note: A voicemail or email message is not an acceptable form of cancellation. Please use the PSI Website or call PSI to speak directly to a Customer Service Representative.

RETAKING A FAILED EXAMINATION

It is not possible to make a new examination appointment on the same day you have taken an examination; this is due to processing and reporting results. A candidate who tests unsuccessfully on a Wednesday can call the next day, Thursday, and retest as soon as Friday, depending upon space availability. You may schedule online at https://test-takers.psiexams.com/wvre. You may also call PSI at (855) 539-0708.

MISSED APPOINTMENT OR LATE CANCELLATION

If you miss your appointment, you will not be able to take the examination as scheduled, further you will forfeit your examination fee, if you:

- Do not cancel your appointment 2 days before the scheduled examination date;
- Do not appear for your examination appointment;
- Are not checked in by your scheduled start time;
- Do not present proper identification during check-in for the examination.

EXAM ACCOMMODATIONS (ADA)

All PSI examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and exam accommodations will be made in meeting a candidate's needs. A candidate with a disability or a candidate who would otherwise have difficulty taking the examination should request for alternative arrangements by <u>Clicking Here</u>.

If a candidate is requesting a reader, it must be administered at a PSI test site. You cannot test remotely with a reader.

Candidates granted accommodation in accordance with the ADA, MUST schedule their examination by telephone and speak directly with a PSI registrar.

EXAMINATION SITE CLOSING FOR AN EMERGENCY

In the event that severe weather or another emergency forces the closure of an examination site on a scheduled examination date, your examination will be rescheduled. PSI personnel will attempt to contact you in this situation. However, you may check the status of your examination schedule by calling (855) 539-0708. Every effort will be made to reschedule your examination at a convenient time as soon as possible. You may also check our website at https://test-takers.psiexams.com/wvre.



EXAMINATION SITE LOCATIONS

The Licensing examinations are administered at the examination centers listed below:

Beckley - West Virginia University 700 A Street Beckley, WV 25801

Dunbar - HRB 1020 Grosscup Avenue Dunbar, WV 25064

Fairmont - Pierpont Community and Technical College 500 Galliher Drive Fairmont, WV 26554

Martinsburg - Blue Ridge Community and Technical College 13650 Apple Harvest Drive Martinsburg, WV 25403

South Charleston - Bridge Valley Community and Technical College 2001 Union Carbide Drive B2000, Room 031 South Charleston, WV 25303

Wheeling - West Virginia Northern Community College 1704 Market Street Wheeling, WV 26003

Additionally, PSI has examination centers in many other regions across the United States. You may take the written examination at any of these locations by typing in your zip code to find the site closest to you.

REPORTING TO THE EXAMINATION SITE

On the day of the examination, you should arrive 15 minutes before your appointment. This extra time is for sign-in, identification, and familiarizing you with the examination process. If you arrive late, you may not be admitted to the examination site and you will forfeit your examination registration fee.

REQUIRED IDENTIFICATION AT EXAMINATION SITE

You must provide 1 form of identification. The identification must match the name you scheduled with.

NOTE: ID must contain candidate's signature, photo, be valid and unexpired.

- State issued driver's license
- State issued identification card
- US Government Issued Passport
- US Government Issued Military Identification Card (not allowed for remote testing)
- US Government Issued Alien Registration Card
- Canadian Government Issued ID

Failure to bring the proper documentation invalidates your registration. You will not be able to take the examination as scheduled, and you will forfeit your examination fee.



SECURITY PROCEDURES

The following examination protocols apply during any examination. PSI may pause or terminate an examination at any time. Failure to follow the examination protocol, may result in the disqualification of examination results, prohibition from taking future examinations, and may lead to legal action.

Prohibited Items:

- Reference materials of any kind.
- Electronic devices of any type, including but not limited to; cellular phones, cameras, computers of any type (e.g., laptops, tablets, iPads), earbuds, electronic games, electronic watches, handheld calculators, headsets, mobile devices, music players (e.g., iPods), pagers, radios, recording devices (audio or video), smart watches, televisions, etc.).
- Hats or headgear not worn for religious reasons or as religious apparel, including hats, baseball caps, or visors.
- Bulky or loose clothing or coats including but not limited to; open sweaters, cardigans, shawls, scarves, vests, jackets and coats.
 - o In the event you are asked to remove bulky or loose outerwear, appropriate attire, such as a shirt or blouse should be worn underneath.
- Other personal items, including but not limited to; backpacks, briefcases, chewing gum, drinks, food, good luck items, notebooks, paper or other materials on which to write, pens, pencils or other writing devices, purses, reading material, smoking or chewing products, wallets, etc.

Prohibited Behavior:

- Giving or receiving assistance on an examination.
- Copying or communicating examination content.
- Using outside references or resources during an exam, examples:
 - o Browsing other local resources.
 - o Browsing the internet.
 - o Attempting to use a computer or computer program not provided or approved by PSI.
 - o Attempting to use a telephone or mobile device.
 - o Using notepad on the computer.
 - o Using an application on the computer not provided by PSI.
- Engaging in disruptive behavior during check-in or during an exam, examples:
 - o Acting in an inappropriate manner.
 - o Using abusive language.
 - o Speaking aloud.
 - o Causing noise unrelated to keyboard typing.
- Engaging in prohibited behavior during check-in or during an exam, examples:
 - o Reading questions out loud.
 - o Leaving the room without proctor approval.
 - o Using instant messaging, or other electronic communication.
 - o Capturing a picture or video of exam items.
 - o Attempting to use telephone or mobile device.
 - o Obstructing the proctor's view (camera or in person).
 - o Having inappropriate materials on desktop (explicit).
 - o Changing spaces during the exam without proctor approval.
 - o Not focusing eyes on the screen.

During the check in process, all candidates will be asked if they possess any prohibited items. Candidates may also be asked to empty their pockets and turn them out for the proctor to ensure they are empty. The proctor may also ask candidates to lift up the ends of their sleeves and the bottoms of their pant legs to ensure that notes or recording devices are not being hidden there.

Proctors will also carefully inspect eyeglass frames, tie tacks, or any other apparel that could be used to harbor a recording device. Proctors will ask to inspect any such items in candidates' pockets.

No prohibited items are allowed within the candidate's reach or line of sight. If prohibited items are found during check-in, candidates shall put them in the provided secure storage or return these items to their vehicle for test center exams. PSI will not be responsible for the security of any personal belongings or prohibited items.

Any candidate seen giving or receiving assistance on an examination, found with prohibited items, or displaying prohibited behavior or violating any security regulations will have his or her examination terminated, and be asked to surrender all examination materials. All such instances will be reported to the examination sponsor.

Additional protocols for testing at a testing center, include but not limited to:

- Person(s) accompanying an examination candidate may not wait in the examination center, inside the building or on the building's property. This applies to guests of any nature, including drivers, children, friends, family, colleagues, or instructors.
- Once candidates have been seated and the examination begins, they may leave the examination room only to use the restroom, and only after obtaining permission from the proctor. Candidates will not receive extra time to complete the examination.
- · You may be given a piece of scratch paper and a pencil. You will return the scratch paper and pencil during check-out.



Additional protocols for remote online proctored exams, include but not limited to:

- Temporarily moving out of the camera's line of sight.
- Candidates are not allowed to have scratch paper.
- Adequate lighting for the proctor to see candidate's activity.
- Internet service must be sufficient to administer the exam.
- Web camera must be placed for ideal viewing by the proctor.
- · Candidate may not change computers during the exam.
- Candidate may not change spaces during the exam.
- Candidate must follow proctor instructions, which may include, but are not limited to:
 - o Keeping hands on the desktop.
 - o Keeping eyes on the computer screen.
 - o Not fidgeting during the exam.
 - o Keeping hands away from face.
- Please do your best to avoid covering your mouth for the whole duration of exam. Be aware that talking/whispering/mouthing is not allowed during exam.
- Breaks are NOT allowed during remote online proctored examinations. If you believe you cannot complete your examination without a break, please do not register for remote online proctored examinations.
- Also note that under no circumstances are you allowed to take a screenshot or photo of the exam or the exam results at any time during or after the session.

TAKING THE EXAMINATION BY COMPUTER

The examination will be administered via computer. You will be using a mouse and computer keyboard.

TUTORIAL

Before you start your examination, an introductory tutorial is provided on the computer screen. The time you spend on this tutorial, up to 15 minutes, DOES NOT count as part of your examination time. Sample questions are included following the tutorial so that you may practice answering questions, and reviewing your answers.

TEST QUESTION SCREEN

One question appears on the screen at a time. During the examination, minutes remaining will be displayed at the top of the screen and updated as you record your answers. After you have entered your responses, you will later be able to return to any question(s) and change your response, provided the examination time has not run out.

EXAMINATION REVIEW

PSI, in cooperation with the West Virginia Contractor Licensing Board, will be consistently evaluating the examinations being administered to ensure that the examinations accurately measure competency in the required knowledge areas. While taking the examination, examinees will have the opportunity to provide comments on any questions. Comments may be entered by clicking the Comments link on the function bar of the test question screen.

These comments will be analyzed by PSI examination development staff. PSI does not respond to individuals regarding these comments, all substantive comments are reviewed. This is the only review of examination materials available to candidates.

SCORE REPORTING

Your score will be displayed on screen at the end of the examination and a score report will be emailed to you. If you fail, the emailed score report will include the diagnostic report indicating your strengths and weaknesses by examination type.

You may request a duplicate score report after your examination by emailing score-report@psionline.com.

Now you can take the practice exam online at https://test-takers.psiexams.com/wvcon to prepare for your Examination.

Please note that practice exams are intended only to help testing candidates become familiar with the general types of questions that will appear on a licensing examination. They ARE NOT a substitute for proper education and study. Furthermore, scoring well on the practice exam does not guarantee a positive outcome on an actual licensing examination. Note: You may take the practice exams an unlimited number of times. However, you will need to pay each time.



DESCRIPTION OF EXAMINATIONS

WEST VIRGINIA BUSINESS AND LAW EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

This exam covers basic business management skills necessary to run a construction business. It also addresses the legal requirements of establishing a business including taxes, laws, and regulations governing construction.

Content Area	# Items Test
Business Organization	2
Contracts	4
Estimating and Bidding	4
Financial Management	5
Labor Law	3
Licensing	7
Lien Law	4
Project Management	8
Risk Management	4
Safety - OSHA	5
Tax Laws	4

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

NASCLA Contractors Guide to Business, Law and Project Management West Virginia edition 1st edition 2022, (100% of questions for this test come from this book).



WEST VIRGINIA CONCRETE CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

"Concrete Contractor" means a contractor whose primary business is installation and repair of concrete, concrete reinforcing materials, concrete products and accessories common to the industry, including the forming, pouring, and finishing of concrete structures such as footings, foundations, slabs, basements, sidewalks and walkways, driveways and parking areas, fence footings, decorative concrete walls not to exceed four (4) feet in height and retaining walls not to exceed five (5) feet in height and the excavation incidental to the performance of that work.

Content Area	# Items Test
Plan Reading and Estimating	4
Earthwork	5
Formwork	8
Reinforcing Steel	7
Concrete	18
Safety - OSHA	4
Specialty Concrete	4

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Building Code 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (25% of questions for this test come from this book).

Contractor's Guide to Quality Concrete Construction, 4th Edition, 2018; American Concrete Institute, POB 9094, Farmington Hills, MI 48333 248/848-3700, www.aci-int.org, (59% of questions for this test come from this book).

Carpentry and Building Construction, 2010 or 2016, John L. Feirer and Mark D. Feirer, McGraw-Hill, https://www.westernerinns.com/carpentry-andbuilding-construction-2016/, (6% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (8% of the questions come from this book).



WEST VIRGINIA ELECTRICAL CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
75	53 (70%)	180 Minutes

"Electrical Contractor" means a person who engages in the business of contracting to install, erect, repair or alter electrical equipment for the generation, transmission or utilization of electrical energy and work incidental to the undertaken contract.

Content Area	# Items Test
Electrical Theory and Trade Knowledge including Tables	9
3 Phase Theory	2
Definitions	4
Wiring and Protections	9
Range Calculations	3
3 Phase Calculations	2
Wiring Methods	12
Equipment for General Use	6
Special Occupancies	10
Special Equipment	5
Special Conditions	3
Communications Systems	2
Conduit Fill	2
Service Loads	4
Voltage Drop	2

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

National Electrical Code, NFPA 70, 2017 or 2020, National Fire Protection Association, 1 Batterymarch, Quincy, MA 02269-9101, (617) 770-3000,

https://www.amazon.com/NFPA-70-National-ElectricalCode/dp/1455906727, (82% of questions for this test come from this book).

American Electricians' Handbook, 16th edition, Croft, Hartwell & Summers, http://www.amazon.com/AmericanElectricians-thandbook-Sixteenth-Edition/dp/0071798803, (18% of questions for this test come from this book).



WEST VIRGINIA EXCAVATION CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

"Excavation Contractor" means a contractor whose primary business is the installation, alteration, and repair of earthen material by digging, trenching, grading, or compacting the material for a cut, fill, grade, or trench and work incidental to the undertaking, including the installation, alteration, and repair of crib walls, gabion walls, and other devices not to exceed six (6) feet in height for the purpose of controlling the movement of earthen materials.

Content Area	# Items Test
General Knowledge	7
Survey and Layout	5
Excavation	5
Clearing, Grubbing, Trenching and Shoring	5
Groundwater, Sediment Control and Dewatering	3
Grading and Compaction	8
Safety OSHA	6
Estimating and Plan Reading	6
Equipment	5

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Building Code 2015 or 2018, International Code Council, 800-786-4452, https://shop.iccsafe.org/, (13% of questions for this test come from this book).

Pipe and Excavation Contracting, Dave Roberts, 1987 or 2011, Craftsman Book Company, (800) 829-8123, www.craftsmanbook.com (62% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (25% of the questions come from this book).

WEST VIRGINIA GENERAL BUILDING CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
80	56 (70%)	180 Minutes

"General Building Contractor" means a person whose principal business is in connection with any structures built, being built or to be built for the support, shelter and enclosure of persons, animals, chattels or movable property of any kind, requiring in the construction the use of more than two contractor classifications, or a person who supervises the whole or any part of the construction. A General Building Contractor is considered to be a commercial, business or industrial contractor. A General Building Contractor who desires to perform electrical, plumbing, heating, ventilating and cooling, piping, or general engineering contracting work as defined in this rule; shall obtain a license in those classifications. The General Building Contractor classification applies to work on both commercial and private properties.

Content Area	# Items Test
Plan Reading and Estimating	8
Sitework and Foundations	8
Concrete	12
Masonry	8
Structural Steel	6
Carpentry	14
Associated Trades (including interior and exterior finishes, and windows & doors)	12
Roofing	6
Safety OSHA	6

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Building Code, 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (37% of questions for this test come from this book).

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2016). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com, (14% of questions for this test come from this book).

Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com, (17% of questions for this test come from this book).

Contractor's Guide to Quality Concrete Construction, 4th Edition, 2018; American Concrete Institute, POB 9094, Farmington Hills, MI 43 248/848-3700, www.aci-int.org, (20% of questions for this test come from this book).

Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org, (5% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (7% of the questions come from this book).

WEST VIRGINIA GENERAL ENGINEERING CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
80	56 (70%)	180 Minutes

"General Engineering Contractor" means a person whose principal business is in connection with public or private works projects, including, but not limited to, one or more of the following: irrigation, drainage and water supply projects; electrical generation projects; swimming pools; flood control; harbors; railroads; highways; tunnels; airports and airways; sewers and sewage disposal systems; bridges; inland waterways; pipelines for transmission of petroleum and other liquid or gaseous substances; refineries; chemical plants and other industrial plants requiring a specialized engineering knowledge and skill; piers and foundations; and structures or work incidental thereto. "Swimming pool" means a public swimming pool as defined by the Building Officials and Code Administrators B.O.C.A. National Building Code 1990, article 6, section 623.2.A.

Content Area	# Items Test
Sitework	8
Excavation including Blasting	12
Foundations	4
Concrete and Paving	14
Steel	10
Utilities	16
Safety OSHA	4
Estimating and Plan Reading	12

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Building Code 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (18% of questions for this test come from this book).

Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org, (6% of questions for this test come from this book).

Contractor's Guide to Quality Concrete Construction, 4th Edition, 2018; American Concrete Institute, POB 9094, Farmington Hills, MI 48333 248/848-3700, www.aci-int.org, (14% of questions for this test come from this book).

Modern Welding, 11th Edition, 2013, Althouse, Turnquist, Bowditch, Bowditch, The Goodheart-Willcox Company, Inc., 18604 West Creek Dr., Tinley Park, IL 60477-6243, 1-800-323- 0440, www.goodheartwillcox.com, (11% of questions for this test come from this book).

Pipe and Excavation Contracting, Dave Roberts, 1987 or 2011, Craftsman Book Company, (800) 829-8123, www.craftsmanbook.com, (44% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (6% of the questions come from this book).

WEST VIRGINIA HVAC CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
80	56 (70%)	180 Minutes

Heating, Ventilating and Cooling Contractor" means a person who engages in the business of contracting to install, erect, repair, service or alter heating, ventilating and air conditioning equipment or systems to heat, cool or ventilate residential and commercial structures or work incidental to the installation or repair.

Content Area	# Items Test
General Knowledge and Code Requirements	34
Load Calculations	6
Control	10
Ducting and Insulation	10
Piping	6
Safety OSHA	4
Equipment	10

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Mechanical Code 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (32% of questions for this test come from this book).

Modern Refrigeration and Air Conditioning, 21st edition, Goodheart-Wilcox Company, www.g-w.com, (27% of questions for this test come from this book).

Manual N - Commercial Load Calculation for Small Commercial Buildings, 5th Edition, 2008, Air Conditioning Contractors of America (ACCA), (703) 575-4477, www.acca.org, (13% of questions for this test come from this book).

HVAC Duct Construction Standards, Metal and Flexible, SMACNA 4th edition, 2020, https://store.smacna.org/hvac-duct-construction-standards-metal-and-flexible-4th/, (16% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (12% of the questions come from this book).

WEST VIRGINIA MANUFACTURED HOME INSTALLATION EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
60	42 (70%)	180 Minutes

Content Area	# Items Test
West Virginia Code Chapter 21 and Title 42	8
Manufactured Home Construction and Safety Standards (HUD CFR 24 Part 3280)	5
Manufactured Home Installation Program (Part 3286)	2
Manufactured Home Installation Standards (CFR 24 Part 3285)	40
Topics include:	
Transportation	
Site Preparation	
Pier and Permanent Foundations	
Anchors and Tie-Downs	
Mate-Line Connections	
Skirting and Ventilation	
Utility Connections	
Safety OSHA	5

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

West Virginia Manufactured Home Installer Manual, 2022, A Compilation of the required West Virginia Manufactured Housing Construction and Safety Standards (Chapter 21 and Title 42) and the HUD CFR 24 Parts 3280, 3285, and 3286, (88% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (12% of the questions come from this book).

WEST VIRGINIA MASONRY CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

"Masonry (specialty) Contractor" means a contractor whose primary business is the installation of brick, concrete block, stone, marble, slate or other units and products common to the masonry industry, with or without mortar and work incidental to the installation, including the installation of grout, caulking, tuck pointing, sand blasting, mortar washing, parging, cleaning, and welding of reinforcement steel related to masonry construction.

Content Area	# Items Test
Plan Reading and Estimating	5
Concrete Block	13
Brick	11
Stone and Glass Block	5
Mortar	7
Steel Reinforcement	4
Safety - OSHA	5

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Building Code, 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (13% of questions for this test come from this book).

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2016). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com, (74% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (13% of the questions come from this book).

WEST VIRGINIA MULTI-FAMILY CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
74	52 (70%)	180 Minutes

"Multifamily Contractor" means a person who is engaged in the construction, repair or improvement of a multifamily residential structure or work incidental to the construction, maintenance or repair. Multifamily residential structure means a structure containing two or more residential units.

Content Area	# Items Test
Plan Reading and Estimating	9
Sitework	6
Concrete	9
Masonry	8
Structural Steel	3
Carpentry	15
Roofing	6
Associated Trades (including siding, insulation, doors and windows and finishes)	12
Safety OSHA	6

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Building Code, 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (40% of questions for this test come from this boo).

Contractor's Guide to Quality Concrete Construction, 4th Edition, 2018; American Concrete Institute, POB 9094, Farmington Hills, MI 48333 248/848-3700, www.aci-int.org, (21% of questions for this test come from this book).

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2016). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com, (14% of questions for this test come from this book).

Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com, (18% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (7% of the questions come from this book).

WEST VIRGINIA PIPING CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

"Piping Contractor" means a person whose principal business is the installation of process, power plant, air, oil, gasoline, chemical or other kinds of piping; and boilers and pressure vessels using joining methods of thread, weld, solvent weld or mechanical methods or work incidental to the installation.

Content Area	# Items Test
General Regulations	20
Weld Pipe Fabrication	10
Underground Piping	8
Piping Systems	6
Safety - OSHA	6

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Plumbing Code, 2015 or 2018, International Code Council, 800-786-4452, https://shop.iccsafe.org/, (46% of questions for this test come from this book).

Pipefitter's Handbook, 1967, 3rd Edition, Forest R. Linsey, Industrial Press, Inc., 200 Madison Avenue, New York, NY 10016, (16% of questions for this test come from this book).

Pipe Welding Procedures, 1973, H. Rampaul, Industrial Press, Inc., 200 Madison Avenue, New York, NY 10016, (16% of questions for this test come from this book).

Facility Piping Systems Handbook 3rd Edition, Michael Frankel, McGraw-Hill, (6% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (16% of the questions come from this book).

WEST VIRGINIA PLUMBING CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
100	70 (70%)	180 Minutes

Master Plumber means a person whose principal business is the installation, maintenance, extension and alteration of piping, plumbing fixtures, plumbing appliances and plumbing appurtenances, venting systems and public or private water supply systems within or adjacent to any building or structure; including the installation of gas piping, chilled water piping in connection with refrigeration processes and comfort cooling, hot water piping in connection with building heating, piping for stand pipes or work incidental to the installation.

Content Area	# Items Test
General Knowledge	15
Fixtures and Fittings	6
Storm and Roof Drainage	5
Fuel Gas Systems	10
Safety OSHA	7
Isometrics	13
Water Supply and Distribution	14
Water Heaters	7
Drain, Waste and Vent Systems	14
Plumbing Math	9

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Plumbing Code; 2015 or 2018 International Code Council, 800-786-4452, https://shop.iccsafe.org/, (73% of questions for this test come from this book).

International Fuel Gas Code 2015 or 2018, International Code Council, 800-786-4452, https://shop.iccsafe.org/, (13% of questions for this test come from this book).

Mathematics for Plumbers and Pipefitters, 8th edition, 2013, Delmar Cengage Learning, https://www.cengage.com/c/mathematics-for-plumbers-and-pipefitters-8e-smith/9781111642600/, (9% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (5% of the questions come from this book).

WEST VIRGINIA REMODELING & REPAIR CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

Content Area	# Items Test
Plan Reading and Estimating	5
Sitework	4
Concrete	5
Masonry	5
Carpentry	10
Roofing	6
Associated Trades (including siding, insulation, doors and	
windows and finishes)	10
Safety - OSHA	5

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Residential Code for One- and Two-Family Dwellings, 2015 or 2018, International Code Council, (800) 786-4452; 5203 Leesburg Pike, Suite 600 Falls Church, VA 22041, www.intlcode.org/, (29% of questions for this test come from this book).

Contractor's Guide to Quality Concrete Construction, 4th Edition, 2018; American Concrete Institute, POB 9094, Farmington Hills, MI 48333 248/848-3700, www.aci-int.org, (26% of questions for this test come from this book).

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2016). The Goodheart-Willcox Company, (800) 323- 0440, www.g-w.com, (15% of questions for this test come from this book).

Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com, (23% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (7% of the questions come from this book).

WEST VIRGINIA RESIDENTIAL CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
80	56 (70%)	180 Minutes

"Residential Contractor" means a person whose principal business is in connection with the construction, repair or improvement of real property used as, or intended to be used for, residential occupancy or work incidental to the construction or repair. A Residential Contractor is considered licensed for all crafts required in the construction, repair or improvement of a residential structure, as that term is defined in subsection 3.33 of this rule, except those crafts for which local ordinance or state law other than W. VA. Code 21-11-1, et seq, require licensure, such as the electrician's license required by the office of the State Fire Marshall under the provisions of W. VA. Code 29-3b-1, et seq.

Content Area	# Items Test
Plan Reading	9
Sitework and Foundations	6
Concrete	9
Masonry	9
Carpentry	15
Associated Trades (including interior and exterior	
finishes, roofing, and windows & doors)	6
Safety OSHA	6

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Residential Code for One- and Two-Family Dwellings, 2015 or 2018, International Code Council, (800) 786-4452; International Code Council, 5203 Leesburg Pike, Suite 600 Falls Church, VA 22041, 7039314533, www.intlcode.org/, (27% of questions for this test come from this book).

Contractor's Guide to Quality Concrete Construction, 4th Edition, 2018; American Concrete Institute, POB 9094, Farmington Hills, MI 48333 248/848-3700, www.aci-int.org, (23% of questions for this test come from this book).

Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com, (21% of questions for this test come from this book).

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2016). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com, (16% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (13% of the questions come from this book).

WEST VIRGINIA SPRINKLER AND FIRE PROTECTION CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
80	56 (70%)	180 Minutes

"Sprinkler and Fire Protection Contractor" means a contractor engaged in the installation, repair or maintenance of fire suppression systems, including water sprinkler and chemical systems, and work incidental to the installation or repair.

Content Area	# Items Test
Code and General Knowledge	8
Sprinkler Systems	36
Water Supply, Storage and Distribution	12
Materials and Methods	8
Private Hydrants and Stand Pipe Systems	8
Commercial Kitchen Equipment	8

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

NFPA 13 - Standard for the Installation of Sprinkler Systems, 2016. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (39% of questions for this test come from this book).

NFPA 13D - Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2016. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (25% of questions for this test come from this book).

NFPA 13R - Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies, 2016. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (9% of questions for this test come from this book).

NFPA 14 - Standard for the Installation of Standpipe and Hose Systems, 2013. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (4% of questions for this test come from this book).

NFPA 17 - Standard for Wet Chemical Extinguishing Systems, 2013. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (9% of questions for this test come from this book).

NFPA 24 - Standard for Installation of Private Fire Service Mains and Their Appurtenances, 2013. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (4% of questions for this test come from this book).

NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2014. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471. Available at www.nfpa.org. (10% of questions for this test come from this book).

WEST VIRGINIA STRUCTURAL STEEL ERECTION CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

"Masonry (specialty) Contractor" means a contractor whose primary business is the installation of brick, concrete block, stone, marble, slate or other units and products common to the masonry industry, with or without mortar and work incidental to the installation, including the installation of grout, caulking, tuck pointing, sand blasting, mortar washing, parging, cleaning, and welding of reinforcement steel related to masonry construction.

Content Area	# Items Test
Plan Reading and Estimating	5
Structural Steel	10
Welding and Cutting	6
Connections including Bolting	4
Metal Decking	6
Metal Siding and Roofing	3
Metal Joists	5
Staging, Rigging and Cranes	6
Safety - OSHA	5

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

Metal Building Systems Manual, 2018, Metal Building Manufacturers Association (MBMA) and International Code Council (ISBN: 978-1-60983-875-1), https://shop.iccsafe.org/metal-building-systems-manual-2018-edition.html, (15% of questions for this test come from this book).

Modern Welding, 11th Edition, 2013, Althouse, Turnquist, Bowditch, Bowditch, The Goodheart-Willcox Company, Inc., 18604 West Creek Dr., Tinley Park, IL 60477-6243, 1-800-323- 0440, www.goodheartwillcox.com, (25% of questions for this test come from this book).

Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org, (27% of questions for this test come from this book).

SDI (Steel Deck Institute) Manual of Construction with Steel Deck, 2016, 3rd Edition, Publisher-Steel Deck Institute, PO Box 25, Fox River Grove, IL 60021, Phone (847) 458-4647, Fax (847) 458-4648, <a href="https://www.sdi.org/publications-2/publ

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (11% of the questions come from this book).

WEST VIRGINIA UTILITIES CONTRACTOR (WATER AND SEWER) CONTRACTOR EXAMINATION

# of Questions	Minimum Passing Score	Time Allowed
50	35 (70%)	180 Minutes

"Utilities (Water and Sewer) Contractor" means a person who principal business is in the installation of water and sewer lines on private projects and work incidental to the installation. The "utilities (Water and Sewer) Contractor" classification applies to work on both commercial and residential properties.

Content Area	# Items Test
Utilities Sitework	8
Excavation	9
Water Piping	9
Sewer Piping	8
Plan Reading and Estimating	9
Safety - OSHA	7

EXAMINATION STUDY MATERIALS

The reference materials listed below were used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

This examination is OPEN book. The following references are allowed in the test room.

International Plumbing Code, 2015 or 2018, International Code Council, 800-786-4452, shop.iccsafe.org, (43% of questions for this test come from this book).

Pipe and Excavation Contracting, 2011, Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, (38% of questions for this test come from this book).

It is recommended that candidates review the OSHA Regulations which are bound into the NASCLA Business and Law Manual. These regulations support examination questions in the OSHA Safety topic area (19% of the questions come from this book).

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